

Allowance

1. **Claims 1-10, 14, 16, 18-21, 25, 26, 28-30, 32, 33, 36, 38, 42, 44-50** are pending and allowed in the application. Please see the examiner's amendment and reasons for allowance below.

Examiner's Amendment

2. An examiner's amendment to the record is attached to the Office Action. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dr. Samuel Epstein Reg. 57,328 on 22 September 2008. See attached interview summary.

3. The following claims represent the claims pending in the application.
1. (Currently amended) A service support system comprising:
a service request interface including a service request processor and configured to communicate with a service request system;
a dispatch system interface including a dispatch processor and configured to communicate with a dispatch system configured to utilize historical work force and work load statistics to formulate dispatch instructions;

a service support processor configured to execute instructions residing in a service assignment module; and

a memory to store:

the service assignment module comprising processor-executable instructions that when executed by the service support processor, cause the service support processor to:

assign a first service request to a technician associated with an Incumbent Local Exchange Carrier (ILEC) from a pool of available technicians based at least in part on a historical performance statistic of the technician, and a first location of the technician determined at least in part from global positioning location data associated with a Global Positioning System (GPS) locator, the first service request received via the service request interface;

notify the technician of the first service request via the dispatch system interface; and

assign a second service request to the technician based at least in part on a second location of the technician after receiving service order completion data and frame order completion data related to the first service request, wherein the service order completion data and the frame order completion data related to the first service request indicate that tasks associated with the first service request are complete.

2. (Previously presented) The service support system of claim 1, further comprising a geo-location interface configured to access the GPS locator to determine the first location of the technician, the second location of the technician, or any combination thereof.

Art Unit: 3623

3. (Previously presented) The service support system of claim 1, further comprising a service request status interface to access status data associated with the first service request, the second service request, or any combination thereof.

4. (Original) The service support system of claim 3, wherein the service request status interface is a web-based interface.

5. (Currently amended) The service support system of claim 3, wherein the service request status interface is accessible to a competitive local exchange carrier ~~and wherein the technician is associated with an Incumbent Local Exchange Carrier (ILEC).~~

6. (Original) The service support system of claim 1, further comprising:
a frame system interface configured to access a frame operation management system, the service assignment module configured to transfer frame related service requests to the frame operation management system via the frame system interface.

7. (Original) The service support system of claim 1, further comprising:
a scoring interface configured to access a technician scoring system, the technician scoring system storing an efficiency scoring associated with the technician.

8. (Original) The service support system of claim 1, further comprising:
a statistical knowledge interface configured to access a statistical knowledge system, the statistical knowledge system storing statistical data associated with the service request.

9. (Original) The service support system of claim 1, further comprising:
a billing system interface configured to communicate with a billing system, the billing system to receive completion data associated with the service request.

Art Unit: 3623

10. (Original) The service support system of claim 1, further comprising a user interface to provide data associated with the technician.

11-13. (Canceled).

14. (Currently amended) A work force administration system comprising:
a dispatch interface configured to communicate with a technician dispatch system;
a processor to execute instructions stored in memory; and
a memory accessible to the processor, the memory storing a dispatch module
comprising computer-executable instructions that when executed, cause
the processor to:
receive a service order via a service request interface;
access technician statistics associated with each of a plurality of
technicians, the technician statistics indicating an expected travel
time to a location associated with the service order and an expected
time remaining to complete a current task, wherein the expected
travel time for each respective technician is based on a location of
the respective technician relative to the location associated with the
service order, wherein the location of the respective technician is
determined at least in part from a global positioning location
received from a Global Positioning System (GPS);
assign at least one task of the service order to a technician of the plurality
of technicians, wherein the technician is associated with an
Incumbent Local Exchange Carrier (ILEC), wherein the
assignment is based at least in part on the technician statistics of
each of the plurality of technicians while the technician is engaged
in the current task;
utilize historical work force and work load statistics to formulate dispatch
instructions associated with the service order; and
transfer service instructions associated with the service order via the
dispatch interface to the technician dispatch system.

15. (Canceled).

16. (Currently amended) The work force administration system of claim 14, wherein the dispatch module utilizes the global positioning location received from the GPS system based at least in part on GPS data generated by a GPS locator associated with the technician to formulate the dispatch instructions.

17. (Canceled).

18. (Currently Amended) A system comprising:
- a mobile technician interface configured to communicate with a mobile technician monitoring system;
 - a processor adapted to execute instructions stored in memory; and
 - a memory accessible by the processor, the memory storing:
 - a frame order management system interface including processor-executable instructions that when executed, cause the processor to directly manipulate a central office equipment management system via communication with a frame order management system;
 - a web-based order status reporting interface;
 - a dispatch module that utilizes historical work force and work load statistics to formulate dispatch instructions associated with a service request;
 - an assignment module including processor-executable instructions that when executed, cause the processor to:
 - assign a first task of [[a]] the service request via the mobile technician interface wherein the first task is assigned based at least in part on Global Positioning System (GPS) data received from a Global Positioning System (GPS); and [[to]]
 - assign a second task of the service request via the frame order management system interface~~[[.]]~~;
 - wherein the first task or the second task is assigned to a technician associated with an Incumbent Local Exchange Carrier (ILEC); and
 - an order status monitoring module including additional processor-executable instructions that when executed, cause the processor to access the mobile technician monitoring system via the mobile technician interface to receive service order completion data associated with the first task and configured to access the frame

order management system via the frame order management system interface to receive frame order completion data associated with the second task, and to provide an order status associated with the service request based on the service order completion data and the frame order completion data via the web-based order status reporting interface.

19. (Previously presented) The system of claim 18, wherein the additional processor-executable instructions within the order status monitoring module, when executed, cause the processor to report a complete status associated with the service request upon receipt of both the service order completion data and the frame order completion data.

20. (Previously presented) The system of claim 18, further comprising an internal service management interface configured to communicate with an internal service management system, and wherein the additional processor-executable instructions within the order status monitoring module, when executed, cause the processor to access the internal service management system via the internal service management interface to receive internal service completion data.

21. (Currently amended) The system of claim 18, further comprising:
a service order request interface configured to communicate with a service order request system; and
[[an]] wherein the order dispatch module is configured to access the service order request system to receive the service request.

22-24. (Canceled).

25. (Previously presented) The system of claim 18, further comprising an inventory provisioning interface configured to access a public switch telephone network inventory system.

26. (Currently amended) The system of claim 18, wherein the web-based order status reporting interface is configured to provide access to a competitive local exchange carrier.

27. (Canceled)

28. (Currently amended) The system of claim 18, wherein the [[A]] service web-based order status reporting interface comprises comprising:

a processor to post a web page, the web page based at least in part upon processor-executable instructions associated with the web page and stored in memory; and

a memory storing an order status monitoring module comprising the processor-executable instructions associated with the web page that when executed by the processor, provides access to:

the service order completion data ~~associated with a service request;~~

the frame order completion data ~~associated with the service request, the frame order completion data based at least in part on work completed on central office equipment or regional office equipment;~~ and

a service request status associated with the service order completion data and the frame order completion data.

29. (Currently amended) The ~~service order status interface~~ system of claim 28, wherein the web page is accessible by a competitive local exchange carrier.

30. (Currently amended) ~~[[A]] The method of claim 38, to facilitate service dispatch, the method further comprising:~~
~~communicating with a service request system via a service request interface to receive a service request;~~
~~determining a location of a technician of a plurality of available technicians based on near real time Global Positioning System (GPS) data;~~
~~assigning the service request to the technician based at least in part on a historical technician performance statistic and the location of the technician; and~~
~~notifying the first technician of the first task service request via a dispatch system interface.~~

31. (Canceled).

32. (Currently amended) The method of claim ~~[[30]]~~ 38, further comprising accessing status data associated with the service request via a service request status interface.

33. (Original) The method of claim 32, wherein the service request status interface is a web-based interface.

34-35. (Canceled).

36. (Currently amended) The method of claim ~~[[30]]~~ 38, further comprising accessing a technician scoring system via a scoring interface, the technician scoring system storing an efficiency scoring associated with the technician.

37. (Canceled).

38. (Currently amended) A method comprising:

assigning a first task related to a service request to a first technician via a mobile technician interface, wherein the first task is assigned based at least in part on a technician location determined at least in part based on data received from a Global Positioning System (GPS) locator;

assigning a second task related to the service request to a second technician via a frame order management system interface[[:]], wherein the first technician or the second technician is associated with an Incumbent Local Exchange Carrier (ILEC);

formulating dispatch instructions based at least in part on historical work force and work load statistics;

accessing a mobile technician monitoring system via the mobile technician interface to receive service order completion data associated with the first task;

accessing a frame order management system interface to receive frame order completion data associated with the second task; and

providing an order status associated with the service request based on the service order completion data and the frame order completion data via a web-based order status reporting interface.

39-41. (Canceled).

42. (Currently amended) The service support system of claim 1, wherein the second ~~current~~ location of the technician is different from a third location, wherein the third location is associated with the first service request.

43. (Canceled).

44. (Currently amended) The system of claim [[43]] 18, wherein the GPS data is received from a GPS locator associated with a service delivery vehicle.

Art Unit: 3623

46. (Previously presented) The system of claim 18, wherein the second task is associated with work on central office equipment.

47. (Previously presented) The method of claim 38, wherein the second task is associated with work on central office equipment or work on regional office equipment.

48. (Previously presented) The method of claim 38, wherein the frame order management system interface is configured to directly manipulate a central office equipment management system.

49. (Previously presented) The system of claim 1, wherein the GPS locator is associated with a service delivery vehicle.

50. (Previously presented) The system of claim 30, wherein the GPS data is received from a GPS locator associated with a service delivery vehicle.

Reasons for Allowance

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art references most closely resembling the Applicant's claimed invention are **Weigel, Don**; Cao, Buyang; "Applying GIS and OR Techniques to Solve Sears Technician-Dispatching and Home Delivery Problems", Jan/Feb 1999, Interfaces, 29, 1, ABI/INFORM Global, p.112. (hereinafter **Weigel**), **Bogart US 6,163,607** (hereinafter **Bogart**), **Lesaint US 6,578,005** (hereinafter **Lesaint**) and Norand (see the prosecution history for the various webpages for Norand's handheld Pen*key wireless computer- References A, B, C and D) (hereinafter

Norand)

As for independent **Claim 1**, none of the prior art of record, taken individually or in any combination, teach, inter alia, a service request interface including a processor that communicates with a service request system; a dispatch system interface including a processor that communicates with a dispatch system that utilizes historical work force and work load statistics to formulate dispatch instructions; a processor configured to execute instructions residing in a service assignment module; and a memory that stores instructions that when executed by the service support processor, cause the service support processor to: assign a first service request to a technician associated with an Incumbent Local Exchange Carrier (ILEC) from a pool of available technicians based at least in part on a historical performance statistic of the technician, and a first location of the technician determined at least in part from global positioning location data associated with a Global Positioning System (GPS) locator, the first service request received via the service request interface; notify the technician of the first service request via the dispatch system interface; and assign a second service request to the technician based at least in part on a second location of the technician after receiving service order completion data and frame order completion data related to the first service request, wherein the service order completion data and the frame order completion data related to the

Art Unit: 3623

first service request indicate that tasks associated with the first service request are complete.

As for independent **Claim 14**, none of the prior art of record, taken individually or in any combination, teach, inter alia, a dispatch interface configured to communicate with a technician dispatch system; a processor to execute instructions stored in memory; and a memory accessible to the processor, the memory storing a dispatch module comprising computer-executable instructions that when executed, cause the processor to: receive a service order via a service request interface; access technician statistics associated with each of a plurality of technicians, the technician statistics indicating an expected travel time to a location associated with the service order and an expected time remaining to complete a current task, wherein the expected travel time for each respective technician is based on a location of the respective technician relative to the location associated with the service order, wherein the location of the respective technician is determined at least in part from a global positioning location received from a Global Positioning System (GPS); assign at least one task of the service order to a technician of the plurality of technicians, wherein the technician is associated with an Incumbent Local Exchange Carrier (ILEC), wherein the assignment is based at least in part on the technician statistics of each of the plurality of technicians while the technician is engaged in the current task; utilize historical work force and work load statistics to formulate dispatch instructions associated with the service

Art Unit: 3623

order; and transfer service instructions associated with the service order via the dispatch interface to the technician dispatch system.

As for independent **Claim 18**, none of the prior art of record, taken individually or in any combination, teach, inter alia, a mobile technician interface configured to communicate with a mobile technician monitoring system; a processor adapted to execute instructions stored in memory; and a memory accessible by the processor, the memory storing: a frame order management system interface including processor-executable instructions that when executed, cause the processor to directly manipulate a central office equipment management system via communication with a frame order management system; a web-based order status reporting interface; a dispatch module that utilizes historical work force and work load statistics to formulate dispatch instructions associated with a service request; an assignment module including processor-executable instructions that when executed, cause the processor to assign a first task of the service request via the mobile technician interface wherein the first task is assigned based at least in part on Global Positioning System (GPS) data received from a Global Positioning System (GPS); and assign a second task of the service request via the frame order management system interface; where the first task or the second task is assigned to a technician associated with an Incumbent Local Exchange Carrier (ILEC); and an order status monitoring module including additional processor-executable instructions that when executed, cause the processor to access the mobile technician monitoring system via the mobile technician interface to

receive service order completion data associated with the first task and configured to access the frame order management system via the frame order management system interface to receive frame order completion data associated with the second task, and to provide an order status associated with the service request based on the service order completion data and the frame order completion data via the web-based order status reporting interface.

As for independent **Claim 38**, none of the prior art of record, taken individually or in any combination, teach, inter alia, assigning a first task related to a service request to a first technician via a mobile technician interface, wherein the first task is assigned based at least in part on a technician location determined at least in part based on data received from a Global Positioning System (GPS) locator; assigning a second task related to the service request to a second technician via a frame order management system interface, wherein the first technician or the second technician is associated with an Incumbent Local Exchange Carrier (ILEC); formulating dispatch instructions based at least in part on historical work force and work load statistics; accessing a mobile technician monitoring system via the mobile technician interface to receive service order completion data associated with the first task; accessing a frame order management system interface to receive frame order completion data associated with the second task; and providing an order status associated with the service request based on the service order completion data and the frame order completion data via a web-based order status reporting interface.

Weigel teaches scheduling based on using GIS techniques and a technicians current position. However, Weigel's GIS techniques (i.e. geographic maps) use the same starting position for scheduling a technician rather than dispatch the technician based on where the technician's current position is located. Furthermore Weigel does not teach assigning a technician based on a historical performance statistic and Weigel does not teach where the technician is assigned a second service request based on completion data being received associated with the first service request.being complete. Lesaint teaches assigning a service request to a technician based on receiving the completion data for the first task, but Lesaint does not teach taking into account a historical performance statistic for the technician in assigning a task to that technician. Bogart teaches taking a historical performance statistic into account in assigning a task to a technician, but Bogart does not teach using GPS location information in determining the assignment of a task to a technician. Norand teaches providing a mobile technician a handheld interface for use in the field for providing telecommunication services and where the handheld computer can be used for interfacing with a central computer for the status of orders. However, Norand does not dispatch technicians based on their location using a GPS input nor on where the dispatching occurs based on work load statistics. Norand's invention is primarily concerned with providing technicians with the functionality in the field to perform their task rather than managing the dispatching and ordering of the tasks to particular technicians. Thus even though the cited references

Art Unit: 3623

teach different parts of the claimed invention, the combination of the different cited references would not produce a predictable result to render the claimed invention obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6937993 by Gabbita teaches a method and system for tracking telecommunications service orders.

US 7412400 by Bhela teaches a system and method for providing location information to consumers.

US 7188070 by Dar teaches a system for providing vehicle location information.

US 7058508 by Combs teaches a GPS based system for brokering maintenance services for building maintenance.

US 6925305 by Dawson teaches using a GPS system for the location of wireless transmitters.

Art Unit: 3623

JP 11335020 A by Hasegawa teaches a GPS based system for controlling workers who are performing maintenance tasks.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on 571-272-6737.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGS

9-24-08

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623

